THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A peptide of the formula:

R_1-Val-His-Phe-Phe-Lys-Asn-Ile-R_2

and salts thereof, wherein R_1 and R_2 are independently selected from the group consisting of hydrogen, hydroxy, an amino acid residue and a polypeptide residue; provided that R_1 and R_2 are not both hydrogen or hydroxyl at the same time; including substitutions, additions or deletions thereof provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

2. The peptide of claim 1, wherein R_1 is Asn-Pro-Val- and R_2 is hydrogen or hydroxy.

3. The peptide of claim 1, wherein R_1 is Pro-Val- and R_2 is -Val.

4. The peptide of claim 1, wherein R_1 is Val- and R_2 is -Val-Thr.

5. The peptide of claim 1, wherein R_1 is hydrogen or hydroxy and R_2 is -Val-Thr-Pro.

6. The peptide of claim 1, wherein R_1 is Lys-Ser-His-Gly-Arg-Thr-Gln-Asp-Glu-Asn-Pro-Val- and R_2 is -Val-Thr.

7. A pharmaceutical composition containing as an active ingredient a peptide of the formula:

R_1-Val-His-Phe-Phe-Lys-Asn-Ile-R_2

and salts thereof, wherein R_1 and R_2 are independently selected from the group consisting of hydrogen, hydroxy, an amino acid residue and a polypeptide residue; provided that R_1 and R_2 are not both hydrogen or hydroxyl at the same time; including substitutions, additions or deletions thereof provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein, alone or in combination, in admixture with a pharmaceutical acceptable carrier.

8. The composition of claim 7, wherein R_1 is Asn-Pro-Val- and R_2 is hydrogen or hydroxy.

9. The composition of claim 7, wherein R_1 is Pro-Val- and R_2 is -Val.

10. The composition of claim 7, wherein R_1 is Val- and R_2 is -Val-Thr.

11. The composition of claim 7, wherein R_1 is hydrogen or hydroxy and R_2 is -Val-Thr-Pro.

12. The composition of claim 7, wherein R_1 is Lys-Ser-His-Gly-Arg-Thr-Gln-Asp-Glu-Asn-Pro-Val- and R_2 is -Val-Thr.

13. A method of treating multiple sclerosis in a human by administering to a patient in need thereof, an effective amount of a peptide of the formula:

R_1-Val-His-Phe-Phe-Lys-Asn-Ile-R_2

and salts thereof, wherein R_1 and R_2 are independently selected from the group consisting of hydrogen, hydroxy, an amino acid residue and a polypeptide residue; provided that R_1 and R_2 are not both hydrogen or hydroxyl at the same time; including substitutions, additions or deletions thereof provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein, alone or in combination, in admixture with a pharmaceutical acceptable carrier.

14. The method of claim 13, wherein R_1 is Asn-Pro-Val- and R_2 is hydrogen or hydroxy.

15. The method of claim 13, wherein R_1 is Pro-Val- and R_2 is -Val.

16. The method of claim 13, wherein R_1 is Val- and R_2 is -Val-Thr.

17. The method of claim 13, wherein R_1 is hydrogen or hydroxy and R_2 is -Val-Thr-Pro.

18. The method of claim 13, wherein R_1 is Lys-Ser-His-Gly-Arg-Thr-Gln-Asp-Glu-Asn-Pro-Val- and R_2 is -Val-Thr.

19. The method of claim 13, wherein the peptide is administered intravenously, intrathecally, orally or a combination thereof.

20. The method of claim 19, wherein the peptide is administered intravenously at a dose ranging from 1 mg/kg of body weight to 10 mg/kg of body weight, in single or sequential dosage, as may be required.

21. The method of claim 19 wherein the peptide is administered intrathecally at a dose ranging from 1 mg to 10 mg, in single or sequential dosage, as may be required.